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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/805,745	03/13/2001	Fernando Incertis Carro	FR920000018US1	3874

7590 09/13/2004

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EXAMINER	
AKPATI, ODAICHE T	

ART UNIT	PAPER NUMBER
2135	

DATE MAILED: 09/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/805,745	CARRO ET AL.	
	Examiner	Art Unit	
	Tracey Akpati	2135	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-8 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-8 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 13 March 2001 is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 2-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aikawa et al (6606385 B1).

With respect to Claim 2, the limitation of "splitting said marked text document into a first subset and a second subset of said words including trailing blanks of said inter-word intervals of said words; and, over said first subset: generating a canonical form of said first subset; computing from said canonical form of said first subset and a secret-key a blurring pattern that fits the number of said intervals of said first subset; erasing modifications brought to the numbers of said inter-word blank characters per said blurring pattern; extracting an authentication pattern thereby, obtaining in all said inter-word intervals, odd numbers of blank characters; and, over said second subset: generating canonical form of said second subset; computing from said canonical form of said second subset and said secret-key a blurring pattern that fits the number of said intervals of said second subset; erasing modifications brought to the numbers of said inter-word blank characters per said blurring pattern thereby, obtaining in all said inter-word intervals, odd numbers of blank characters" is met on column 2, lines 42-65 and on column 13, lines 13-26; and "recombining said first subset and said second subset; applying a reverse transform thus retrieving said original text document; computing from retrieved, said original

text document and said secret-key an authentication pattern that fits the number of said intervals of retrieved said original text document comparing extracted said authentication pattern and computed said authentication pattern; if matching exactly, accepting said marked text document as authentic; if not: rejecting said marked text document as fake" on column 3, lines 11-33, column 13, lines 43-47 and on column 14, lines 2-10. The encryption of data represents the blurring pattern creation.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to generate the canonical form of each subset of data because this compresses the data and hence reduces the amount of overhead being sent when the watermarked text document is transmitted from a sender to a receiver.

With respect to Claim 3, the limitation of "splitting steps includes the preliminary steps of generating a canonical form of a text document; computing, from said canonical form of said text document and said secret-key, a splitting pattern that fits the number of said intervals of said text document; thereby, allowing to split and to recombine said text document on the basis of asserted and non-asserted bits of said splitting pattern" is met on column 2, lines 42-65.

With respect to Claim 4, the limitation of "wherein said authentication pattern, said blurring pattern and said splitting pattern are binary vectors comprising a number of bits matching the number of said inter-word intervals" is met on column 10, lines 42-67 and on column 11, lines 1-67.

Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bender (Techniques for Data Hiding) in view of Aikawa et al (6606385B1).

With respect to Claim 1, the limitation of "a method of marking an original text document, said original text document comprising words separated by inter-word intervals, said inter-word intervals including one or more blank characters having numbers, said numbers being altered, said method of altering said numbers of said blank characters, comprising the steps of: applying a reversible transform over said original text document in order that all said inter-word intervals become exclusively comprised of odd numbers of said blank characters" is met by Bender on page 332 and 333, in the "Open Space Methods" section. Bender however does not meet the following limitation.

The limitation of "splitting and transforming said original text document into a first subset and a second subset of said words including trailing blanks of said inter-word intervals of said words; and, over said first subset: computing from said original text document and a secret-key, an authentication pattern that fits the number of said intervals of said first subset; adding inter-word blank characters in positions corresponding to said authentication pattern; generating a canonical form of said first subset; computing, from said canonical form of said first subset and said secret-key, a blurring pattern that fits the number of said intervals of said first subset; modifying the numbers of inter-word blank characters according to said blurring pattern; and, over said second subset: generating canonical form of said second subset; computing, from said canonical form of said second subset and said secret-key, a blurring pattern that fits the number of said intervals of said second subset; modifying the numbers of inter-word blank

characters according to said blurring pattern; recombining said first subset and said second subset thereby, obtaining a marked text for authentication" is met by Aikawa on column 2, lines 42-65 and on column 13, lines 13-26, 51-64. The IDA is the transparent, embedded watermark used for copyright protection.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Aikawa et al within the system of Bender because performing manipulations on the text document during the watermarking process randomizes the resulting watermarked document and hence prevents an attacker from easily reproducing the watermark.

Claims 5-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aikawa et al (6606385B1) in view of Bender (Techniques for Data Hiding).

With respect to Claim 5, Aikawa et al meets all the limitation except for the following limitation.

Bender meets the limitation of "wherein said canonical form is obtained in stripping all blank characters, in excess of one, off said inter-word intervals" on page 332 and 333, in the "Open Space Methods" section.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Bender within the system of Aikawa et al because stripping all the blank characters in excess of one character manipulates the white space manipulation to achieve data compression. This saves overhead during data transmission.

With respect to Claim 6, Aikawa et al meets all the limitation except for the following limitation.

Bender meets the limitation of "wherein modifying steps include: in the positions corresponding to the asserted bits of said blurring patterns; adding one blank character if said inter-word intervals comprise of an odd number of said blank characters; and removing one blank character if said inter-word intervals comprise an even number of said blank characters" on page 332 and 333, in the "Open Space Methods" section.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Bender within the system of Aikawa et al because stripping all the blank characters in excess of one character manipulates the white space manipulation to achieve data compression. This saves overhead during data transmission.

With respect to Claim 7, Aikawa meets the limitation of "wherein modifying steps and erasing steps are performed identically" on column 3, lines 11-33.

With respect to Claim 8, Aikawa et al meets all the limitation except for the following limitation.

The limitation of "wherein extracting step includes removing one blank character in those of said inter-word intervals that are comprised of an even number of said blank characters; obtaining a binary authentication vector with asserted bits corresponding to positions where said blank characters were removed" is met by Bender on page 332 and 333, in the "Open Space Method" section.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Bender within the system of Aikawa et al because stripping all the blank characters in excess of one character manipulates the white space manipulation to achieve data compression. This saves overhead during data transmission.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tracey Akpati whose telephone number is 703-305-7820. The examiner can normally be reached on 8.30am-6.00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Vu can be reached on 703-305-4393. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Please note the Patent Office will be moving to the Alexandria campus next month. The new phone number for myself, Tracey Akpati is (571) 272-3846, my SPE, Kim Vu is (571) 272-3859 and the receptionist is (571) 272-2100.

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